

Notice of Allowability

Application No.

10/676,251

Examiner

Shelby Fidler

Applicant(s)

ENDO, HIRONORI

Art Unit

2861

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/06/2005.
2. ☒ The allowed claim(s) is/are 1,4-9 and 12-34.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Laura Moskowitz on 01/23/2006.

In claim 1, line 31, after "detection," delete "sensibility" and insert therefore -- sensitivity--.

In claim 16, line 36, after "detection," delete "sensibility" and insert therefore -- sensitivity--.

In claim 18, line 32, after "detection," delete "sensibility" and insert therefore -- sensitivity--.

Allowable Subject Matter

Claims 1, 4-9, and 12-34 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 1, 4-8 is the inclusion of the method steps for recording on a medium that includes lowering a detection sensitivity of the sensor so that it becomes difficult for the sensor to detect the recording medium, and then moving the sensor toward the second end point and if the sensor, whose detection sensitivity has been lowered, detects the recording medium while the sensor is being moved toward the second end point, then obtaining a corner-to-corner distance, which is a distance in the predetermined direction,

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between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these steps found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 9 and 12-15 is the inclusion of the method steps for recording on a medium that includes lowering a detection sensitivity of the sensor so that it becomes difficult for the sensor to detect the recording medium, and then moving the sensor toward the second end point and if the sensor, whose detection sensitivity has been lowered, detects the recording medium while the sensor is being moved toward the second end point, then obtaining a corner-to-corner distance, which is a distance in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these steps found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 16 is the inclusion of the limitations of a recording apparatus that includes a sensor, whose detection sensitivity has been lowered, detects the recording medium while the sensor is being moved toward the second end point and obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by

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the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 17 is the inclusion of the limitations of a recording apparatus that includes a sensor, whose detection sensitivity has been lowered, detects the recording medium while the sensor is being moved toward the second end point and obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 18 is the inclusion of the limitations of a computer-readable medium that includes a code for lowering a detection sensitivity of the sensor so that it becomes difficult for the sensor to detect the recording medium, and then moving the sensor toward the second end point and a code for obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

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The primary reason for the allowance of claim 19 is the inclusion of the limitations of a computer-readable medium that includes a code for lowering a detection sensitivity of the sensor so that it becomes difficult for the sensor to detect the recording medium, and then moving the sensor toward the second end point and a code for obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 20-25 is the inclusion of the method steps for recording on a medium that includes carrying the recording medium by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then moving the sensor toward the second end point and if the sensor, after the recording medium has been carried in the opposite direction, detects the recording medium while the sensor is being moved toward the second end point, then obtaining a corner to corner distance, which is a distance in the predetermined direction between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by a leading edge of the recording medium and a second side edge thereof. It is these steps found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 26-30 is the inclusion of the method steps for recording on a medium that includes carrying the recording medium by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then moving the sensor toward the second end point and if the sensor, after the recording medium has been carried in the opposite direction, detects the recording medium while the sensor is being moved toward the second end point, then obtaining a corner to corner distance, which is a distance in the predetermined direction between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by a leading edge of the recording medium and a second side edge thereof. It is these steps found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 31 is the inclusion of the limitations of a recording apparatus that includes the recording medium is carried by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then the sensor is moved toward the second end point, and if the sensor, after the recording medium has been carried in the opposite direction, detects the recording medium while the sensor is being moved toward the second end point, then a corner-to-corner distance, which is a distance in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as

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they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 32 is the inclusion of the limitations of a recording apparatus that includes the recording medium is carried by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then the sensor is moved toward the second end point, and if the sensor, after the recording medium has been carried in the opposite direction, detects the recording medium while the sensor is being moved toward the second end point, then a corner-to-corner distance, which is a distance in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a first side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 33 is the inclusion of the limitations of a computer-readable medium that includes a code for carrying the recording medium by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then moving the sensor toward the second end point, and a code for obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not

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been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 34 is the inclusion of the limitations of a computer-readable medium that includes a code for carrying the recording medium by a predetermined opposite-carrying amount from the detection position in a direction opposite to the predetermined direction, and then moving the sensor toward the second end point, and a code for obtaining a corner-to-corner distance which is a distance, in the predetermined direction, between a first corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof, and a second corner of the recording medium formed by the leading edge of the recording medium and a second side edge thereof. It is these limitations found in the claims, as they are claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chung et al. (US 5192141) teaches of a sensor, mounted on a carriage, that senses the front edge and both edge sides of the recording medium to determine its position. Arquilevich et al. (US 6447089 B1) teaches a detector that scans across the leading edge of the recording medium to create an edge profile. Miyazaki (US 6305856 B1) teaches detecting the skew of a recording medium by using multiple detectors. Yokoi et al. (US 6092893) teaches conveying the recording medium in an opposite direction to correct the skew by forcing the medium against a stationary roller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the

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issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communications with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on MWF 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shelby Fidler

SLF

K. FEGGINS 2/06
PRIMARY EXAMINER